

REMARKS

The present Amendment amends claims 1, 2, 4-9 and 11-13, leaves claims 3 and 14, 16 and 17 unchanged and cancels claims 10 and 15. Therefore, the present application has pending claims 1-9, 11-14, 16 and 17.

Claims 1-17 stand rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as their invention. Various amendments were made throughout claims 1-17 to bring them into conformity with the requirements of 35 USC §112, second paragraph. Therefore, this rejection with respect to claims 1-17 is overcome and should be withdrawn.

Specifically, amendments were made throughout claims 1-17 to overcome the objections noted by the Examiner in the Office Action.

Claims 1-9 and 11-17 stand rejected under 35 USC §103(a) as being unpatentable over Wiegel (U.S. Patent No. 6,484,261) in view of Even (U.S. Patent Application Publication No. 2004/0114612) and Slavin (U.S. Patent No. 6,675,193); and claim 10 stands rejected under 35 USC §103(a) as being unpatentable over Wiegel and Even and further in view of Day (U.S. Patent No. 5,996,025). As indicated above, claims 10 and 15 were canceled. Therefore, the 35 USC §103(a) rejections of claims 10 and 15 are rendered moot.

The above noted rejection with respect to the remaining claims 1-9 and 11-14, 16 and 17 is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-9 and 11-14, 16 and 17 are not taught or suggested by Wiegel, Even, Slavin

or Day whether taken individually or in combination with each other as suggested by the Examiner. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

Amendments were made to the claims to more clearly describe features of the present invention. Particularly, amendments were made to the claims to recite that the present invention is directed to a stream server apparatus connected to a first network and a second network, a network attached storage including the stream server apparatus and a computer program implemented by the stream server apparatus.

According to the present invention in the stream server apparatus the first network connects the stream server apparatus and a first client apparatus and a firewall apparatus and the second network connects the stream server apparatus and a second client apparatus and the firewall apparatus. The stream server apparatus communicates via a first path that includes said first network and said first client apparatus, via a second path that includes the first network and the firewall apparatus and the second client apparatus, and via a third path that includes the second network and the second client apparatus.

Further, according to the present invention the stream server apparatus includes a first interface which transmits and receives control request packets and data packets to and from said first client apparatus via the first path and being capable of transmitting and receiving control request packets to and from said second client apparatus via said second path, a second interface which transmits and receives data packets to and from the second client apparatus via the third path and a stream transport management module

which specifies the first interface or the second interface in accordance with a network attribute of the first client apparatus and the second client apparatus, and specifies distribution protocol for each client apparatus based on a network to which the client apparatus is connected.

Still further, according to the present invention in the stream server apparatus if the network to which the client apparatus is connected is the first network, bandwidth control is executed and the client apparatus is notified of a port number identifying a port through which communications are to be conducted, and if the network to which the client apparatus is connected is the second network, bandwidth control is not executed and the client apparatus is notified of a dummy port number identifying a dummy port through which communications are not conducted.

Still further yet, according to the present invention the stream server apparatus includes a bandwidth management processing module which dynamically assigns a port and identifies the port by a port number and executes the bandwidth control based on a bandwidth control protocol for controlling a bandwidth of the stream data distribution, and a process module which executes a communication process based on communication protocols related to said first and second client apparatuses via said first interface or the second interface.

The purpose of the present invention is to perform stream transporting with the same stream transporting performance toward either a client within a LAN or a client within the Internet. This purpose of the present invention is achieved by the use of the stream server apparatus as recited in the claims that communicates with a client connected to a LAN without going through a

firewall, and that communicates with a client connected to the Internet while going through the firewall. The stream transporting based on the transporting protocols according to the present invention is discussed, for example, on page 4, lines 5-9, and page 9, lines 7-19 of the present application.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention now more clearly recited in the claims are not taught or suggested by Wiegel, Even or Slavin whether taken individually or in combination with each other or any of the other references of record.

The object of Wiegel is to establish a representation of an abstract network security policy (Abstract). In Wiegel when the policy representation is saved, the script is translated into machine instructions that govern the operation of the network gateway and firewall. In Fig.1 Wiegel, a simplified block diagram is disclosed. Wiegel discloses communication within a local network without going through a firewall in Fig. 1 thereof.

However, there is no teaching or suggestion in Wiegel of the above described features of the stream server of the present invention as recited in the claims. In Wiegel, a local server 116 and a security system as illustrated in Fig. 2 is provided. In Wiegel a knowledge base 202 and a policy translation agent 204 are provided for converting policies into a form useful to the firewall, router 102 and switch 208. However, at no point in Wiegel is there any teaching or suggestion of the stream server apparatus and operations performed thereby as recited in the claims.

Thus, there is no teaching or suggestion in Wiegel of a stream server that communicates via a first path that includes the first network and the first client apparatus, via a second path that includes the first network and the firewall apparatus and the second client apparatus, and via a third path that includes the second network and the second client apparatus as in the present invention as recited in the claims.

Further, there is no teaching or suggestion in Wiegel of a stream server and that if the network to which the client apparatus is connected is the first network, performs bandwidth control and notifies the client apparatus of a port number identifying a port through which communications are to be conducted, and that if the network to which the client apparatus is connected is the second network, does not perform bandwidth control and notifies the client apparatus of a dummy port number identifying a dummy port through which communications are not conducted as recited in the claims.

Still further, there is no teaching or suggestion in Wiegel of a stream server having a stream transport management module which specifies the first interface or the second interface in accordance with a network attribute of the first client apparatus and the second client apparatus, and specifies distribution protocol for each client apparatus based on a network to which the client apparatus is connected as recited in the claims.

The above described deficiencies of Wiegel are not supplied by any of the other references of record. Particularly the above described deficiencies of Wiegel are not supplied by Even, Slavin or Day whether taken individually or in combination with each other as suggested by the Examiner.

Even discloses a multimedia communication system via Internet 140 and firewall 120 and LAN 110, or Internet 140 and multimedia communication control unit 200 and LAN 110. The multimedia communication control unit 200 allows only multimedia communication data that strictly adheres to a particular communication protocol to pass through).

Although Even does not disclose a streaming server, there is a disclosure of a system in which when transporting data between clients, a part of the data, that is, call setup data is transmitted through a firewall, and the remaining data is transmitted through the multimedia communication control unit 200 without going through the firewall. Attention is directed to paragraphs [0028] to [0030] of Even. However, this disclosure of Even does not correspond to the features of the present invention as recited in the claims in that a stream server is provided having a stream transport management module which specifies the first interface or the second interface in accordance with a network attribute of the first client apparatus and the second client apparatus, and specifies distribution protocol for each client apparatus based on a network to which the client apparatus is connected as in the present invention as recited in the claims.

Even discloses the firewall as an essential element for performing verification of data after the data is transmitted from a data transmitting source client and a multimedia communication control unit 200 for establishing a connection after the verification. See paragraph [0039] of Even. However, such a system as taught by Even differs from the features of the present invention as recited in the claims in which a server as a streaming data transmitting source decides an interface based on an attribute of a network to

which a client as a data transmitting destination is connected before transporting the streaming data.

If the system taught by Even were applied to this the situation to which the present invention is addressed, then sufficient security could not be ensured. Further, it would not be possible in Even to perform stream data distribution to clients both in LAN and on the Internet at the same stream data distribution performance without using an additional stream server as is possible according to the present invention as discussed, for example, on page 4, lines 5-9 of the present application.

Slavin simply discloses a client/server system in Fig.2 thereof. Slavin discloses only communication between and server and client with no firewall.

Day discloses a system, method and computer program being provided for a control server in a client/server environment where an API framework facilitates scalable, network transparency, integrated multimedia content loading and data streaming.

Day discloses a server bandwidth resource management (in column 2). In contradistinction, according to the present invention, a stream server apparatus 105, when an access request is issued from a client, determines whether the source which has transmitted the access request is connected to a LAN or an Internet, based on the address of the request transmitting source. According to the present invention, when the source is connected to the LAN, the stream server apparatus 105 transports data in a path not passing through the firewall, and when the source is connected to the Internet, the stream server apparatus 105 at first communicates control information in a path passing through a firewall and then transports data in a path not passing

through the firewall. These features of the present invention as now recited in the claims are not taught or suggested in any of the cited Even, Slavin and Day.

According to the present invention the stream server apparatus judges whether network bandwidth management is to be executed. If network bandwidth management is to be executed, the stream server dynamically assigns a port, and if not to be executed, generates a dummy transmission and reception port (number). Attention is directed to Figs.5 and 6 and page 24, line 28 to page 27, line 7 of the present application. These features of the present invention as now recited in the claims are not taught or suggested in any of the cited Even, Slavin and Day.

Thus, there is no teaching or suggestion in Even, Slavin and Day of a stream server that communicates via a first path that includes the first network and the first client apparatus, via a second path that includes the first network and the firewall apparatus and the second client apparatus, and via a third path that includes the second network and the second client apparatus as in the present invention as recited in the claims.

Further, there is no teaching or suggestion in Even, Slavin and Day of a stream server and that if the network to which the client apparatus is connected is the first network, performs bandwidth control and notifies the client apparatus of a port number identifying a port through which communications are to be conducted, and that if the network to which the client apparatus is connected is the second network, does not perform bandwidth control and notifies the client apparatus of a dummy port number

identifying a dummy port through which communications are not conducted as
recited in the claims.

Still further, there is no teaching or suggestion in Even, Slavin and Day
of a stream server having a stream transport management module which
specifies the first interface or the second interface in accordance with a
network attribute of the first client apparatus and the second client apparatus,
and specifies distribution protocol for each client apparatus based on a
network to which the client apparatus is connected as recited in the claims.

Therefore, since Wiegel, Even, Slavin and Day suffer from the same
deficiencies relative to the features of the present invention as recited in the
claims, combining the teachings of Wiegel, Even, Slavin and Day in the
manner suggested by the Examiner in the Office Action still fails to teach or
suggest the features of the present invention as now more clearly recited in
the claims. Accordingly, reconsideration and withdrawal of the 35 USC
§103(a) rejection of claims 1-9, 11-14, 16 and 17 as being unpatentable over
Wiegel, in view of Even, Slavin and Day is respectfully requested.

The remaining references of record have been studied. Applicants
submit that they do not supply any of the deficiencies noted above with
respect to the references utilized in the rejection of claims 1-17.

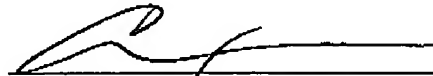
In view of the foregoing amendments and remarks, applicants submit
that claims 1-9, 11-14, 16 and 17 are in condition for allowance. Accordingly,
early allowance of claims 1-9, 11-14, 16 and 17 is respectfully requested.

To the extent necessary, Applicants petition for an extension of time
under 37 CFR 1.136. Please charge any shortage in fees due in connection
with the filing of this paper, including extension of time fees, or credit any

overpayment of fees, to the deposit account of MATTINGLY, STANGER,
MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (500.43372X00).

Respectfully submitted,

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